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3. (Canceled) The method of claim 1, wherein the treatment plasma comprises an inert plasma.
4. (Canceled) The method of claim 3, wherein the treatment plasma comprises a He plasma.
5. (Canceled) The method of claim 1, wherein the treatment plasma comprises an oxygen-containing plasma.
6. (Canceled) The method of claim 5, wherein the treatment plasma comprises a N₂O plasma.
7. (Canceled) The method of claim 3, wherein exposing the carbon-containing layer to the treatment plasma comprises exposing the layer in the substantial absence of oxygen, nitrogen, and hydrogen containing gases.
8. (Canceled) The method of claim 1, further comprising generating the treatment plasma by flowing a gas into a processing chamber at a rate of about 100 to about 4000 sccm, establishing a chamber pressure between about 1 to about 12 Torr, applying RF power to the chamber having a power density of about 0.7 to about 11 W/in².
9. (Canceled) The method of claim 1, wherein exposing the carbon-containing layer to the treatment plasma occurs *in situ* with a deposition of the carbon-containing layer.
10. (Canceled) A system for treating a carbon-containing layer on a substrate, comprising:
 - a) a substrate processing chamber in which the carbon-containing layer is exposed to a treatment plasma;
 - b) a gas distributor connected to the chamber;
 - c) a source of gas connected to the gas distributor; and

e) a power source adapted to generate the treatment plasma to expose the carbon-containing layer.

11. (Canceled) The system of claim 10, wherein carbon-containing layer comprises silicon carbide.

12. (Canceled) The system of claim 10, wherein the treatment plasma comprises an inert gas.

13. (Canceled) The system of claim 12, wherein the treatment plasma comprises a He plasma.

14. (Canceled) The system of claim 10, wherein the treatment plasma comprises an oxygen-containing gas.

15. (Canceled) The system of claim 14, wherein the treatment plasma comprises a N₂O plasma.

16. (Canceled) The system of claim 10, wherein the chamber is adapted to deposit the carbon-containing layer on the substrate *in situ* with and prior to exposure of the carbon-containing layer with the treatment plasma.

17. (Canceled) The system of claim 11, wherein the treatment plasma is produced by a process comprising flowing the gas into the chamber at a rate of about 100 to about 4000 sccm, establishing a chamber pressure between about 1 to about 12 Torr, and applying RF power to the chamber having a power density of about 0.7 to about 11 W/in².

18. (Canceled) A substrate, comprising a carbon-containing layer surface exposed to a treatment plasma.

19. (Canceled) The substrate of claim 18, wherein carbon-containing layer comprises silicon carbide.

20. (Canceled) The substrate of claim 18, wherein exposure of the carbon-containing layer to the treatment plasma occurs *in situ* with a deposition of the carbon-containing layer.

21. (Canceled) The substrate of claim 18, wherein the treatment plasma comprises a He plasma.

22. (Canceled) The substrate of claim 18, wherein the treatment plasma comprises a N₂O plasma.

23. (Canceled) The system of claim 18, wherein the treatment plasma is produced by a process comprising flowing a gas into a processing chamber at a rate of about 100 to about 4000 sccm, establishing a chamber pressure between about 1 to about 12 Torr, and applying RF power to the chamber having a power density of about 0.7 to about 11 W/in².

Please add the following new claims:

- Subst 7*
24. A method of processing a semiconductor substrate, comprising:
depositing a first layer comprising a material selected from the group consisting of organic polymeric materials, α C, α FC, SiCOH, and SiC; and
E, > exposing the first layer to a plasma consisting essentially of an inert gas;
depositing a second layer over the first layer.
25. The method of claim 24, wherein the first layer comprises silicon carbide.
- Subst 7*
26. The method of claim 24, wherein the plasma comprises a He gas plasma.
27. The method of claim 24, wherein exposing the first layer to the plasma comprises exposing the first layer in a substantial absence of oxygen, nitrogen, and hydrogen containing gases.

- Sub F*
28. The method of claim 25, wherein the plasma comprises a He gas plasma.
29. The method of claim 25, wherein exposing the first layer to the plasma comprises exposing the first layer in a substantial absence of oxygen, nitrogen, and hydrogen containing gases.
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- Sub E₃*
30. The method of claim 24, wherein exposing the first layer to the plasma comprises generating the plasma by flowing a gas into a processing chamber at a rate of about 100 to about 4000 sccm, establishing a chamber pressure between about 1 to about 12 Torr, applying RF power to an electrode of the chamber to provide a power density of about 0.7 to about 11 W/in².
31. The method of claim 24, wherein exposing the first layer to the plasma and depositing the first layer is performed in a single process chamber.
32. The method of claim 25, wherein exposing the first layer to the plasma and depositing the first layer is performed in a single process chamber.
33. The method of claim 24, wherein the composition of the first layer is substantially the same prior to and subsequent to exposing the first layer to the plasma.
34. A method of processing a semiconductor substrate, comprising:
step for depositing a first layer comprising a material selected from the group consisting of organic polymeric materials, α C, α FC, SiCOH, and SiC;
step for treating the first layer with a plasma consisting essentially of an inert gas to improve the adhesion of a second layer over the first layer; and
step for depositing the second layer over the first layer.
35. The method of claim 34, wherein the step for treating improves the oxidation resistance of the first layer.

Sab P 36. The method of claim 34, wherein the step for treating prevents delamination of the second layer from the first layer.

E₃ 37. The method of claim 34, wherein the first layer comprises silicon carbide.

E₃ E₃ 38. The method of claim 34, wherein the plasma comprises a He gas plasma.

39. The method of claim 34, wherein the step for treating comprises exposing the first layer to the plasma in a substantial absence of oxygen, nitrogen, and hydrogen containing gases.

Sab P 40. The method of claim 37, wherein the plasma comprises a He gas plasma.

41. The method of claim 37, wherein the step for treating comprises exposing the first layer to the plasma in a substantial absence of oxygen, nitrogen, and hydrogen containing gases.

Sab P 42. The method of claim 34, wherein the step for treating comprises exposing the first layer to the plasma generated by flowing a gas into a processing chamber at a rate of about 100 to about 4000 sccm, establishing a chamber pressure between about 1 to about 12 Torr, applying RF power to an electrode of the chamber to provide a power density of about 0.7 to about 11 W/in².

E₅ 43. The method of claim 34, wherein the step for treating and the step for depositing the first layer are performed in a single process chamber.

44. The method of claim 37, wherein the step for treating and the step for depositing the first layer are performed in a single process chamber.

45. The method of claim 34, wherein the composition of the first layer is substantially the same prior to and subsequent to the treating step.--